

### **REMARKS**

The Final Office Action mailed April 19, 2006 has been carefully reviewed and considered. Claims 1-14 are previously pending. Claims 1-14 stand rejected. Applicant respectfully requests entry of the foregoing reply and reconsideration of the present application in light of the remarks below.

#### The First 35 U.S.C. § 103 Rejection

Claims 1-4 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ellis et al.<sup>1</sup> ("Ellis") in view of Yamamoto,<sup>2</sup> ("Yamamoto") among which claims 1 and 3-4 are independent claims. Without admitting that Ellis and Yamamoto are prior art and reserving the right to establish that they are not prior art, Applicant respectfully traverses this rejection for the reasons below.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.<sup>3</sup>

Applicant submits that neither Ellis nor Yamamoto nor the combination of both teaches or suggests all the claim limitations listed in the claims. For example, Claim 1 recites in part:

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<sup>1</sup> U.S. Patent Publication No. 2003/0149988.

<sup>2</sup> U.S. Patent No. 6,169,845.

<sup>3</sup> M.P.E.P. § 2143.

1. A gateway comprising:
  - a crossbar switching circuit having a plurality of input and output (“I/O”) ports ;
  - a digital TV satellite receiver . . . coupling to a first I/O port of said crossbar switching circuit;
  - an infrared or radio frequency receiver circuit . . . coupled to a second I/O port of said crossbar switching circuit;
  - a modem coupled to a third I/O port of said crossbar switching circuit . . . ;
  - a decompression and conversion circuit having a data input coupled to a fourth I/O port of said crossbar switching circuit . . .
  - a hard disk coupled to a fifth I/O port of said crossbar switching circuit; and
  - a computer coupled to a sixth I/O port of said crossbar switching circuit . . .

Emphasis added. In other words, the present invention claims a gateway that includes a crossbar switching circuit wherein I/O ports of the crossbar switching circuit are configured to couple to various devices including a digital TV satellite receiver, an infrared or radio frequency receiver circuit, a modem, a decompression and conversion circuit, a hard disk, and a computer for data processing and data distribution. In one embodiment, crossbar switching circuit 112 routes the compressed data received Receiver 106 to hard disk 114. If the program is to be viewed, switching circuit 112 routes compressed data to the decompression and conversion circuit 110 before displaying the program. See FIG 3 and its corresponding description on page 16, lines 4 to 18 of the specification.

Contrary to the present invention, Ellis discloses a program guide system that records programs at a remote media server in response to user requests. See page 1, paragraph 0012 of Ellis. FIG 7 of Ellis, illustrated on next page, shows an arrangement for the user television equipment, which includes a digital storage device 31 and a communication device 37 wherein digital storage device 31 records programs and program guide data while communications device 37 communicates with program guide server 25, remote media server 24, or internet service. See paragraph 0098 to 0105 on page 8 of Ellis.

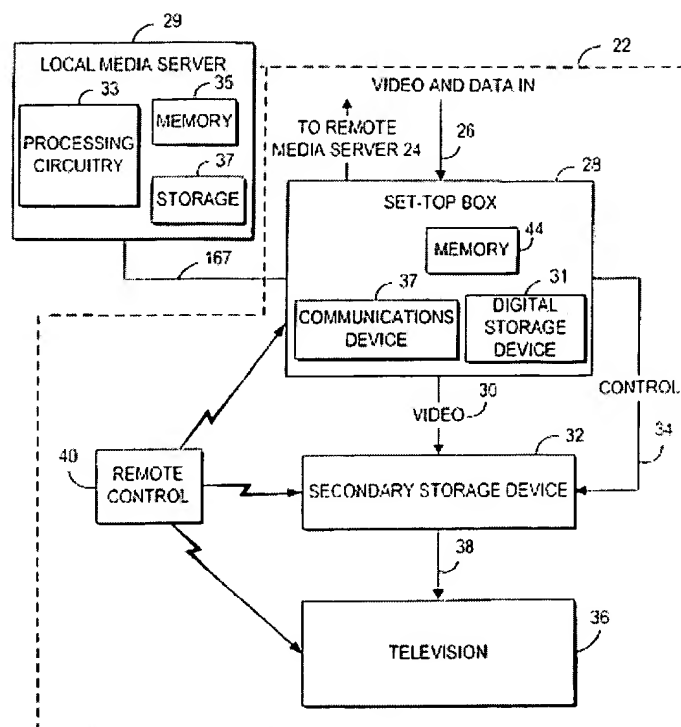


FIG. 7

The Office Action specifically asserts that STB-28, FIGs 7, 9 and paragraphs [0102] and [0112] on pages 8-9 disclose a switching circuit having a plurality of input and output (I/O) ports. Applicant respectfully disagrees with this assertion. Paragraphs [0102] and [0112] state that:

**[0102]** Digital storage device 31 can be contained in set-top box 28 or it can be an external device connected to set-top box 28 via an output port and appropriate interface. Digital storage device 31 may, for example, be contained in local media server 29. If necessary, processing circuitry in set-top box 28 formats the received video, audio and data signals into a digital file format. Preferably, the file format is an open file format such as the Moving Pictures Expert Group (MPEG) MPEG-2 standard or the Moving Joint Photographic Experts Group (MJPEG) standard. The resulting data is streamed to digital storage device 31 via an appropriate bus (e.g., a bus using the Institute Electrical and Electronics Engineers (IEEE) 1394 standard), and is stored on digital storage device 31. In another suitable approach, an MPEG-2 data stream or series of files may be received from distribution equipment 21 and stored in digital storage device 31. For example, files from

television distribution facility 16 for programs recorded by the user using remote media server 24 may be stored. Such digital files may be played back to the user when desired.

**[0112]** A more generalized embodiment of user television equipment 22 of FIG. 7 is shown in FIG. 9. As shown in FIG. 9, program guide data from program guide distribution facility 16 (FIG. 1) is received by control circuitry 42 of user television equipment 22. The functions of control circuitry 42 may be provided using the set-top box arrangement of FIG. 7. Alternatively, these functions may be integrated into an advanced television receiver (e.g., a digital television receiver or high definition television (HDTV) receiver), personal computer television (PC/TV), or any other suitable arrangement. If desired, a combination of such arrangements may be used.

Paragraphs [0102] and [0112] of Ellis essentially disclose a digital storage device 31 and a control circuitry 42 wherein digital storage device 31 stores data including MPEG-2 data stream and control circuitry 42 receives program guide data. Neither paragraph 0102 nor paragraph 0112 discloses or suggests a switching circuit or any equivalents thereof, which includes multiple I/O ports coupling to various devices as claimed in Claim 1.

The Office Action, however, contends that control circuitry 42 disclosed in Ellis is a Tuner/CC of STB 28 and “STB-28 uses IP protocol, and other suitable protocols to communicate data to/from LocalMS-29 and other devices on the LAN and CC/ProC-42 routes data to appropriate Devices.” See page 14, lines 7-10 of the Office Action. Applicant respectfully disagrees with this contention. Ellis has never taught or suggested that control circuitry 42 is a tuner. To the contrary, Ellis discloses a processing circuitry 11 of remote media server 24, which may include one or more tuners. See paragraph [0088] of Ellis. Furthermore, control circuitry 42 disclosed by Ellis can not render the claimed limitation of “a crossbar switching circuit having a plurality of input and output (“I/O”) ports” obvious because control circuitry 42 neither performs the same or substantially the same function(s) as the crossbar switching circuit as claimed nor includes multiple I/O ports that can be used to connect to various other devices as claimed.

The Office Action further alleges that Figs 1-2 and link 20 described in paragraph [0062-0065] of Ellis discloses or teaches the claimed element of “a digital TV satellite receiver . . . coupling to a first I/O port of said crossbar switching circuit.” Applicant disagrees with this allegation because Ellis merely discloses communications paths 20 for distributing program guide data and “may include, for example, a satellite link . . .” See paragraph 0065 of Ellis. The description of communications paths 20 include a satellite link in Ellis can not be construed or equivalent to the claimed element of “a digital TV satellite receiver having an input for coupling to a satellite dish and an output for coupling to a first I/O port of said crossbar switching circuit.”

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitation. M.P.E.P. §2143. Although the Office Action correctly states that “Ellis fails to explicitly teach a crossbar switching or router circuit having a plurality of input and output (I/O) ports” (see page 5 of the Office Action), Applicant disagrees with the Office Action’s assertion that Ellis combines with Yamamoto would render Claim 1 obvious. Yamamoto essentially discloses “Encoders 11, 21 and 31 and decoders 17, 27 and 37 are in parallel disposed between the crossbar switch2” and “the system controller 1 switches the crossbar switch 2 so as to establish a connection between the I/O passage 10 and the decoder 17.” See col. 3, line 55 to col. 4, line 39 of Yamamoto.

A desired outcome that the invention provides cannot be used as the motivation to combine the references if there is no such teaching in the references. Since neither Ellis nor Yamamoto teaches or suggests a combination between Ellis and Yamamoto, Applicant contends that there is no teaching to combine.

Even assuming for the sake of argument that Ellis and Yamamoto were combined, the combination would still fail to render the present invention obvious because neither Ellis nor Yamamoto nor a combination of both discloses or suggests a gateway that includes a crossbar switching circuit wherein I/O ports of the crossbar switching circuit are configured to couple to various devices including a digital TV satellite receiver, an infrared or radio frequency receiver

circuit, a modem, a decompression and conversion circuit, a hard disk, and a computer for data processing and data distribution. Accordingly, one of ordinary skill in the art would not combine Ellis and Yamamoto, because even if they were combined, the combination would still fail to disclose or suggest each and every element disclosed in Claim 1. At least for the reasons stated above, Claim 1 is patentable over Ellis in view of Yamamoto under §103. Since Claims 3-4 contain similar limitations as Claim 1, Claims 3-4 should also be patentable over Ellis and Yamamoto.

If the independent claims are valid, the claims that depend from the independent claims should also be valid as matter of law. See Jenric/Pentron, Inc. v. Dillon Co., 205 F. 3d 1377, 1382 (Fed. Cir. 2000). ). Since Claim 2 depends from allowable independent Claim 1, Claim 2 should also be patentable as matter of law.

#### The Second 35 U.S.C. § 103 Rejection

Claims 7-9, 12 and 14 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ellis in view of Isono et al.,<sup>4</sup> (“Isono”) and Claims 10-11 and 13 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ellis in view of Isono and further in view of Tidwell et al.,<sup>5</sup> (“Tidwell”) among which claims 7 is an independent claim. Without admitting that Ellis, Isono and Tidwell are prior art and reserving the right to establish that they are not, Applicant respectfully traverses this rejection for the reasons below.

Claim 7 recites in part:

a packet switch/router having a plurality of input and output (“I/O”) ports,  
 wherein a first I/O port of said packet switch/router is coupled to said IP  
 video means and a second I/O port of said packet switch/router is coupled  
 to said processing means, for receiving data . . . and routing said packets  
 based upon data in routing tables . . .  
 a server means coupled to a third I/O port of said packet switch/router . . .

<sup>4</sup> U.S. Patent No. 6,216,171.

<sup>5</sup> U.S. Patent Publication No. 2001/0043687.

a DHCP server means coupled to a fourth I/O port of said packet switch/router for assigning IP addresses to . . .

a computer coupled to a fifth I/O port of said packet switch/router . . .

one or more local area network interface circuits (LAN NIC) coupled to a sixth I/O port of said packet switch/router for sending data . . .

Emphasis added. The present invention claims a gateway that includes a packet switch/router having multiple I/O ports wherein the I/O ports are individually coupled to an IP video means, a processing means, a server means, a DHCP server means, a computer and one or more LAN NIC for data processing. Applicant respectfully disagrees with the assertion made in the Office Action that “‘Tuner/CC’ of STB-28, page 4, [0068-0070], page 9, [0107]) discloses the claimed limitation of “a packet switch/router having a plurality of input and output (“I/O”) ports, wherein a first I/O port of said packet switch/router is coupled to said IP video means and a second I/O port of said packet switch/router is coupled to said processing means, for receiving data from said IP video means and routing said packets based upon data in routing tables to an appropriate destination and for receiving data packets addressed from said headend and routing said packets to said headend via using said processing means and said transceiver means.”

As discussed earlier, Ellis has never taught or suggested control circuitry 42 as a turner. Moreover, control circuitry 42 disclosed by Ellis can not render the claimed limitation of “a packet switch/router having a plurality of input and output (“I/O”) ports . . .” obvious because control circuitry 42 neither performs the same or substantially the same function(s) as the packet switch/router nor routes the packets and/or data based upon routing tables.

Isono essentially discloses an information-supply control apparatus for controlling the supply of information supplied from a first apparatus and a plurality of second apparatuses. See col. 1, lines 42-46 of Isono. Applicant respectfully submits that a desired outcome that the invention provides cannot be used as the motivation to combine the references if there is no such

teaching in the references. Since neither Ellis nor Isono teaches or suggests a combination between Ellis and Isono, Applicant contends that there is no teaching to combine.

Even assuming for the sake of argument that Ellis and Isono were combined, the combination would still fail to render the present invention obvious because neither Ellis nor Isono nor a combination of both discloses or suggests a gateway that includes a packet switch/router that is connected to various devices via its I/O ports, and routs packets based upon routing tables. Accordingly, one of ordinary skill in the art would not combine Ellis and Isono, because even if they were combined, the combination would still fail to disclose or suggest each and every element disclosed in Claim 7. At least for the reasons stated above, Claim 7 is patentable over Ellis in view of Isono under §103. Since Claims 8-14 depend from allowable independent Claim 7, Claims 8-14 should also be patentable as matter of law.

#### The Third 35 U.S.C. § 103 Rejection

Claims 5-6 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Ellis in view of Yamamoto, and in further in view of Billerbeck et al.,<sup>6</sup> ("Billerbeck") among which claim 5 is the independent claim. Without admitting that Ellis and Yamamoto and Billerbeck are prior art and reserving the right to establish that they are not prior art, Applicant respectfully traverses this rejection for the reasons below.

Since Claim 5 contains similar limitations as Claim 1, the arguments set forth above regarding Claim 1 should be equally applicable here. Accordingly, Applicant submits that one of ordinary skill in the art would not combine Ellis, Yamamoto and Billerbeck, because even if they were combined, the combination would still fail to render the present invention obvious because neither Ellis nor Yamamoto nor Billerbeck nor a combination of the three discloses or suggests a gateway that includes a crossbar switching circuit wherein I/O ports of the crossbar switching

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<sup>6</sup> U.S. Patent No. 6,844,895.



circuit are configured to couple to various devices including a digital TV satellite receiver, an infrared or radio frequency receiver circuit, a modem, a decompression and conversion circuit, a hard disk, and a computer for data processing and data distribution. At least for this reason, Claim 5 is patentable over Ellis in view of Yamamoto and Billerbeck under §103. Since Claim 6 depends from allowable independent Claim 5, Claim 6 should also be patentable as matter of law.

#### Request for Entry of Amendment

Entry of this reply will place the Application in better condition for allowance, or at the least, narrow any issues for an appeal. Accordingly, entry of this reply is appropriate and is respectfully requested.

#### Conclusion

Based on all of the above, Applicant believes all claims now pending in the present application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

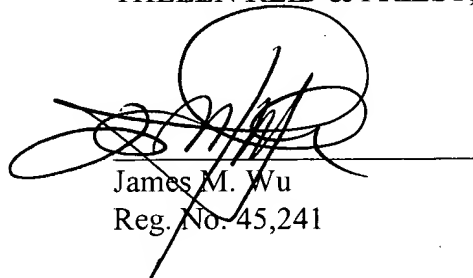
No additional fees are believed to be due at this time. However, please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Applicant thanks the Examiner for carefully examining the present application and if a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Jim Wu at (408)282-1885.

Respectfully submitted,

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